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THE

GRADED APPARATUS WORK FOR MEN

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LOWER GRADE

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No. 1.

Introduction.

This pamphlet is intended as a guide for apparatus work for older boys and young men who have not had any previous training in this work. Although the material contained herein may be used for class-work purposes which indeed is a useful way of reviewing, at certain intervals, the completed lessons, it was intended by the author to be used for squad work, where a leader has charge of a squad or section of the class. Because of this the exercises are limited to the most popular apparatus, the horizontal bar, side horse, side and long parallel bar, buck, long horse, and rings.

With reference to "procedure" the leader of a squad should bear the following points in mind:

1. New exercises are printed in italics. Being new to the men they require more attention than the others.
2. Exercises marked "Aim" should be thoroughly mastered. They prepare the way for the more difficult ones.
3. If an exercise possible of a left and right execution is described only to one side, it should also be practiced to the other.
4. Learning the ability of the members of the

squad enables you to better adapt the exercises to them. Some easy preparatory exercises may perhaps be omitted. More than one lesson may, at times be taken through.

5. After the work has advanced some, the pupils should be encouraged to make up simple combinations of their own of two or three parts based on exercises completed.

The topic, at the beginning of each lesson, as well as the suggestions referring to the development of exercises, variations, progression and combinations, will be of help to Normal School students.

E. R.

Indianapolis, Ind., January, 1916.

NOMENCLATURE.

The Gymnast and the Apparatus.

In order to definitely define the relation of the gymnast to the apparatus regardless of what position he may assume, it is necessary to employ a series of terms whose meaning will illustrate what surface of the individual is turned toward the apparatus and what relation the gymnast's breadth axis bears to the length axis of the apparatus.

The individual is possessed of a front, a rear, and a left and right surface. To determine the relationship between an apparatus and these surfaces the suffix "ways" has been employed and the terms frontways (vorlings), rearways (rücklings), and sideways (seitlings), have been coined.

In a position frontways (vorlings Verhalten) the front of the individual is facing the apparatus, in a position rearways (rücklings Verhalten) the rear, and in a position sideways (seitlings Verhalten) left (right) the left (right) side of the gymnast faces the apparatus. In these positions the individual, and not the apparatus, is the decisive factor in selecting the expression which shall clearly illustrate his relation to the apparatus. A position is, therefore, sideways left (seitlings links) if the apparatus is at the left side of the individual.

The gymnast is, furthermore, possessed of a breadth (Breiten-), length (Längen-), and depth (Tiefenaxe) axis, which are of significance in gymnastic terminology.

The breadth (also termed lateral) axis is an imaginary line drawn from side to side, and is the only axis essential in describing positions; the length (also termed vertical) axis passes from the sole to the head, and the depth (also termed antero-posterior) axis from the anterior to the posterior surface. Turns may be executed about the three axes. Likewise, we may consider a length and breadth axis of the apparatus, but in the practical application have only the need of the length axis. This consists of an imaginary line running longitudinally through the apparatus.

Considering the geometric relation of the breadth axis of the gymnast to the length axis of the apparatus gives rise to positions in which these lines are at right angles, parallel or oblique to each other. They are defined as cross (Quer-), side (Seit-), and oblique (Schrägverhalten) positions. In the cross position these axes are at right angles, in the side position they are parallel (or the gymnast's breadth axis may be the produced line of the length axis of the apparatus), and in the oblique positions they are oblique to each other.

From these considerations the following positions are obtained regardless of whether they are stands, seats, supports, hangs, etc. The stand has been selected to illustrate them.

A side or cross stand frontways (Quer- oder Seitverhalten vorlings).

A side or cross stand rearways (Quer- oder Seitverhalten rücklings).

A side or cross stand sideways (Quer- oder Seitverhalten seitlings).

The oblique position is seldom used, occurring, however, occasionally as a seat.

The following classification will be of some assistance in understanding the nomenclature:

Apparatus may be classified as portable and stationary, possessing a fixed or movable, divided or undivided surface, which, furthermore, may be horizontal, oblique, or vertical.

It is, furthermore, necessary to understand the terms used for the different parts of the apparatus; as, *left* and *right pommel*, *neck* (left end) and *croup* (right end) of the horse when in a side stand frontways; *near* and *far pommel* when in a cross stand frontways; *left* and *right bar* of the parallel bar when in a cross stand frontways; *near* and *far bar* when in a side stand frontways and *front* and *rear bar* when in an inner side stand. The same terms occur on the ladder excepting that the term beam is used in place of bar.

Directions.

Parts of the body moved by the gymnast while on the apparatus, base their directions of movement upon the surfaces of the gymnast and the same rules may be applied here as in the free exercises. Forward (*vorwärts*) is a direction indicated by the front, backward (*rückwärts*) by the rear or back, and sideward (*seitwärts*) by the side of the individual. Upward (*aufwärts*) is the direction above the head, which, in doubtful cases, could readily give way to headward. Downward (*abwärts*) is the direction toward and below the feet, which can, when necessary, be replaced by footward. For the

intermediate oblique positions refer to the terminology of free exercises.

In exercises where the whole body is moved as a unit the directions are the same as for parts of the body, excepting the upward and downward direction. These are then no longer toward the head and the feet respectively, but toward the ceiling and the floor. On some apparatus the terms ascend and descend clearly define direction regardless of the position of the body. Thus a gymnast moving toward the floor on the upper side of the oblique ladder in the inverted support lying position, where his head is toward the bottom and his feet on the beams toward the top, is said to be moving downward (to descend), although he is moving in a direction toward his head, or to ascend, when he is moving in a direction toward his feet. Similarly, a person is climbing upward on poles or ropes if he is moving toward the ceiling, regardless of whether he is in the ordinary, or in an inverted climbing position; i. e., moving head first or feet first.

In defining directions of turns about the three axes of the gymnast his surfaces are the determining factors. The turns about the length axis are similar to those of the free exercises, are defined the same (left or right), and may be of the same degrees (one-fourth, one-half, etc.). It is essential, however, to state the arm about which a turn is to be executed when in the hang or the support; e. g., one-half turn left, about the right arm (*halbe Drehung links um den rechten Arm*). This is not necessary if both hands give up their grips

simultaneously. Turns about the depth axis are designated as such with the directions right and left, indicating the side of the body toward which the turn is to begin, the head moving first. Thus a *one-fourth turn right about the depth axis* (viertel Drehung rechts um die Tiefenaxe) would be a movement clockwise, when facing the clock, to the degree signified. In turns about the breadth axis the movement of the front or rear of the head determines the direction. Thus in a *turn-over or hip circle forward* (Ueberdrehen- oder Felge vorwärts) the head moves in a forward, and the feet move in a backward direction, and in a turn-over or hip swingup backward (Ueberdrehen oder Felgaufschwung rückwärts) the movement is reversed. These turns about breadth and depth axes are simply explained by using the rolling direction of a wheel to indicate them. The turn that it makes about its axis in rolling from the gymnast in the direction in which he is facing, is a forward turn, in the opposite direction a backward turn, and to his left or right side is a left or right turn respectively.

When the entire body or parts of it move in a circle in a horizontal plane the direction can be determined by the movements of the hands of a clock. If the movement is clockwise (assuming the clock to be lying horizontally in front of the gymnast) it is a circle right. Counter clockwise is termed left. These conditions occur in hanging circling and in double leg circling in the hang. The terms for single leg circling in the support (e. g. on

the side horse) are simplified by naming the hands under which the leg swings successively.

Forms of Grips.

Upper or over grip. (Ristgriff. Aufgriff.) The surface of the apparatus is grasped from above. The thumbs are below the grasped surface and directed toward each other. In grasping beams the thumb should be placed next to the forefinger (beams of the ladders, booms).

Under grip. (Kammgriff. Untergriff.) The apparatus is grasped with hands in supination, shoulder width apart, and little fingers toward each other.

Outer grip. (Speichgriff. Aussengriff.) The divided surface of the apparatus is grasped from its outer side with the palms turned toward each other. On the undivided surface, the thumb of one hand and small finger of the other are toward each other.

Inner grip. (Ellengriff. Innengriff.) The divided surface of the apparatus is grasped from the inner side with the hands hyperpronated and the palms directed outward.

Reverse under grip. (Zwangellengriff.) The undivided surface of the apparatus is grasped from the far side and from above with the hands hyperpronated, so that the fingers will be on top with the little fingers toward each other, and the palms directed backward.

Mixed grip. (Zwiegriff.) A combination in which the hands grasp with two different grips. It generally consists of upper and lower grip, but may consist of any other two.

Open grip. Any grip in which the hands are shoulder width apart.

Span grip. (Spanngriff.) Any grip in which the arms are further than shoulder width apart. Examples: span upper grip; span outer grip.

Closed grip. (Schlussgriff.) It consists of any grip in which the hands are close together.

Grasping. When the hand moves on the apparatus and regrips it the term "grasp" is used; e. g., grasp forward, backward, etc. If the grip is changed with the grasping, it must be indicated; as grasp forward with upper grip. According to the order in which the hands move there may be used a "*followgrasp*," one hand following the other, "*overgrasp*," one hand grasping above the other, and "*simultaneous grasp*," when both hands move together as in climbing.

Positions on Apparatus.

I. STANDS ON THE APPARATUS.

The straight stand. (Streckstand.) ("Stand" for short.) The same as the fundamental position of Free Exercises. Faults: Drooping head and shoulders, flat chest.

Straddle stand. (Grätschstand.) As in Free Exercises.

Squat stand. (Hockstand.) As in Free Exercises. The hands are either inside or outside of knees. When assumed on some apparatus the knees are together.

Knee stand. (Kniestand.) The bodyweight rests on the knees and toes or on the shins.

II. SEATS ON APPARATUS.

The side-seat. (Seitsitz.) The body rests upon the thighs which form the point of support. The breadth axis of the body is parallel to the length axis of the apparatus. The hips are slightly flexed. The head, shoulders, and trunk assume the same firmness of posture as in the fundamental position. The hands grasp the apparatus to maintain the balance. The legs are straight and together, with the ankles extended. Possible on all apparatus. On the *parallel bars* it may occur as *inner* or *outer seat* depending on the position of the body on the apparatus. Faults: Knees bent, flat chest.

The oblique seat. (Schrägsitz.) This seat resembles the side-seat, except that the breadth axis of the body holds an oblique relation to the length axis of the apparatus, and the hips are more flexed, particularly when assumed in rear of the hands. On the *parallel bars* it may occur as an *inner* or *outer oblique seat* in front and in rear of the hands. Faults as in side seat.

The closed cross-seat. (Schluss-Quersitz.) The breadth axis of the body is at right angles to the length axis of the apparatus. The hips are bent to a right angle and the closed and straight legs are on the apparatus. It is used on the *buck* and *horse* in the development of certain vaults, on the stallbar with benches, and on the gymnasium ladder.

The cross-seats on one thigh. (Quersitz.) The thigh rests on the apparatus with the knee bent to a right angle, the lower leg being parallel to the firmly extended other leg. It may be taken in

front or in rear of the hands, and on the parallel bars as an inner or outer cross-seat. The entire body maintains the correct gymnastic position. It is inclined forward, and slightly arched. These seats are designated as "a cross-seat on thigh in front (or rear) of the hand," and on the *parallel bars* as "an *inner* (or *outer*) *cross-seat* in front (or rear) of the hand." On the parallel bars the inner cross-seat may, furthermore, occur on the left (or right) thigh in front or rear of the right (left) hand. Faults: Flat chest, drooping head, bending the pendant leg.

The straddle cross-seat. (Grätschsitz.) Termed straddle seat for short. The breadth axis of the body is perpendicular to the length axis of the apparatus, and the legs straddle the apparatus. It is usually assumed upon the parallel bars and at times upon the ladder, both in front and in rear of the hands. The hips and legs are extended so that the body forms a straight line from foot to head. Faults: Drooping head, chest sinking between shoulders, knees bent.

The straddle side-seat. (Grätschseitsitz.) The extended legs straddle the apparatus (parallel bars) with one leg forward and the other backward. The body rests anteriorly upon one and posteriorly upon the other thigh. The hands usually grasp the front or the front and rear bar. The forward leg must be indicated.

The stride cross-seat or riding seat. (Reitsitz.) This seat resembles the straddle cross-seat in every respect, but is termed a riding seat when it occurs upon an apparatus with an undivided horizontal

surface as the buck, horse, or upon one bar. It may also occur as a stride (or riding) *side-seat* (Reitseitsitz) in which case it also appears like the straddle side-seat with the same difference. Faults: Same as in straddle seat.

III. HANGS AND DERIVED HANGS ON THE APPARATUS.

The short or active hang. (Streckhang.) The body is suspended by the hands, with chest raised, arms extended and in line with the trunk; legs straight and slightly directed backwards. Termed "*hang*" for short. Faults: Letting body sink to passive hang.

The long or passive hang. The body sinks between the shoulders. No effort is made to raise the chest and pull up the body. There is not the muscular effort present as in the active hang.

Bent arm hang. (Beugehang.) *Bent-hang* for short. Same as the active hang excepting that the arms are bent with the elbows preferably at the side of the body (sometimes they are in front of the body). Faults. Sinking of chest, dropping head, knees bent, feet apart.

Elbow hang. (Unterarmhang.) The body is suspended by the elbows. Same faults as in bent-hang.

Upper-arm hang. (Oberarmhang.) The body is suspended by the upper arms. On the undivided horizontal surface the hands meet in front of the chest; on the divided surfaces the arms are slightly bent and directed forward.

Squat-hang. (Single or double.) As the active hang with the knees raised toward the chest.

Balance hang. (Single or double.) As the active hang with the legs raised forward.

Free knee-hang. (Freier Kniehang.) The body is suspended by one or both knees.

Knee hand-hang. (Kniehandhang.) Termed *knee-hang* for short. The body may be suspended by both hands and both knees, both knees and one hand, or both hands and one knee, one hand and one knee. In the last two cases, the other leg is straight, the body horizontal, the chest raised, and the head in line with the trunk. These positions may be taken on undivided and divided surfaces. On the latter they may be taken as an *outer* or *inner knee-hang* on left, right, or both knees, and on the same or opposite bar.

Foot hand-hang, or nest-hang. (Nesthang. Schwimmhang.) In the nest-hang the body is suspended from hands and toes with the back directed toward the apparatus (foot hand-hang rearways). The body is extremely arched in this position. When it is assumed on a divided surface it has an appearance which has given rise to the term hammock hang (Schwimmhang). Faults: Head thrust forward; in hammock hang over extension of lumbar spine.

Inverted hang. (Sturzhang.) The body is suspended vertically by the hands, head downward. On an undivided surface it is assumed frontways and rearways. Faults: Head not in line with trunk, knees and hips bent.

Inverted balance hang. (Abhang.) Same as the preceding with the body bent at the hips. Faults: Knees bent, head thrust forward.

Inverted squat-hang. (Sturzhang mit Anhocken.) Same as preceding with an additional flexion of the knees.

Hang-lying. (Liegehang.) The body is slightly supported by the feet which generally rest on the floor; the greater part of the body weight being suspended from the hands. The arms are straight, the chest raised and the head, trunk and leg in a straight line. Faults: Bent hips and knees, sinking of chest between shoulders.

IV. SUPPORTS AND DERIVED SUPPORTS ON APPARATUS.

Straight arm support. (Streckstütz.) "*Support*" for short. The arms are straight with the chest well raised and the head held high, counteracting the downward pull of the body. The legs are extended and together. When contact with an apparatus is possible the body is more inclined than in the free support. Faults: Head and chest sink between shoulders, arms bent.

The momentary support. (Flüchtiger Stütz.) The body momentarily assumes the support returning immediately to the stand. It is usually free, the body not touching the apparatus. Same faults as in support.

Bent arm support. (Beugestütz.) Same as the preceding, but the elbows are bent as far as possible.

Forearm support. (Unterarmstütz.) Same as the support, but the forearm lies on top of the apparatus furnishing the support instead of the hands.

Support lying. (Liegestütz.) The toes, with

feet closed, rest on the floor or on the apparatus, the arms are straight with the hands shoulder width apart, on the apparatus. The body, from the head to the feet, forms one straight line, with the greater part of the bodyweight supported by the hands and the lesser part by the feet. On the parallel bar the inner edge of the foot is placed on the bar in the position frontways and the outer edge in rearways. Faults: Bent knees, hanging abdomen, sunken chest, tilted head.

Mounts, Dismounts and Vaults.

Mounts are interrupted vaults which terminate in a position on the apparatus. Dismounts consist of vaults beginning from a position on the apparatus and ending in some stand on the floor. Under vaults proper such activities are generally considered which by a vigorous jump, aided by the support of the hands upon the apparatus, carry the body over it.

The directions of vaults, as well as mounts and dismounts, are determined by the side of the body which leads in the movement. They may begin from a stand or a running start.

The take-off for a mount or vault may be either a single take-off, i. e., from one foot, or a double take-off, i. e., from both feet. Example: From a running start with a double take-off and support on pommels, flank vault, etc. All dismounts and vaults lead to a squat-stand with arms at side of body or in the side position depending upon the vault. If one hand re-grasps the apparatus, as is frequently the case, the other arm assumes one of these positions. From the squat-stand the

knees are straightened to a toe-stand, and the hand, if grasping the apparatus, is lowered. If the other arm (or both) is in the side-position, it is likewise lowered. The heels are then lowered to position.

The knee mount. From a double take-off jump and place both knees on the apparatus (horse or buck) so that the body rests on the shins. The hips and knees are thoroughly flexed. The hands retain their grip. In the single knee mount only one knee is placed on the apparatus. The extended pendant leg is directed downward and slightly backward.

The knee jump. From the knee stand the hips and knees are thoroughly bent so that the body inclines slightly forward and the arms are swung backward in preparation for the jump. This is immediately followed by forceful and sudden hip and knee straightening and arm swinging fore-upward which lifts the body off the apparatus. The pupil alights in a squat-stand on the floor or on the apparatus.

The squat vault over the side-horse. (Hocke.) From a double take-off and support on pommels, the knees are raised forward and upward. After passing over the apparatus the body may (a) drop to the squat-stand with arms in the side position from the position of flight, or (b) a vigorous extension of knee and hip joint may occur so that the body will be perfectly straight in the position of flight after it clears the apparatus and before it alights in the squat-stand. (c) It may further be executed by retaining the grip on the pommels long

enough to extend the legs forward and then alight. The last form is generally used by the girls and women. Faults: Grasping on near side of pommels instead of center of pommels, a common fault in all vaults.

The squat vault mount. (a) To squatstand, (b) to stride support or seat. (Vor-oder Rückhocken in den Stütz oder Sitz.) They resemble the vault but end in a position upon the apparatus. (b) may also be executed left or right, forward and backward, and (a) left, right or double. Faults: As in the vault.

The squat-straddle vault over the side-horse. Termed wolf vault. (Wolfssprung; Hockgrätsche.) This vault consists of a squatting movement with one leg, and a straddling movement with the other. It is named according to the leg which straddles. In other respects it resembles the vaults from which it is derived. In execution left the left hand releases its grip first, i. e., as the body clears the apparatus; the legs are then extended and closed, the right hand through a thrust against the pommel assists in righting the body. Faults: Straddling leg bent. Support not on opposite arm, grip of the hand toward the straddling leg retained too long.

The front-vault left, over the side-horse. (Wende.) With support on the pommels, or one pommel and the neck (left end), the firm, slightly arched body rises, from a double take-off to the left with a quarter turn right about its length axis and about to the horizontal (for a high front-vault to the oblique or vertical position) above the ap-

paratus. The anterior surface is toward it. The legs are together, with the ankles thoroughly extended. The chest is well raised. The left hand then releases its grip, is swung sideward, and the gymnast alights in the squat-stand as in the rear-vault to the left. Also performed over the long horse (oblique run) and parallel bar. Faults: Hips and knees bent, feet apart, support not on opposite arm, take-off to one side, alighting behind the hand retaining the grip instead of beside it, grip not in center of pommel.

Front vault mount. It is executed as the front vault, but when directly over the apparatus the body is lowered to some indicated position as in the rear-vault. It is termed "front vault left into the straddle seat, riding seat," etc. Faults: Front surface of body not turned toward horse. Legs apart, knees bent.

Front vault dismount. From some position on the apparatus the body is swung into a position above the apparatus resembling that obtained by the front vault to a stand, and then lowered in the direction indicated into the squat-stand. Faults: Lack of swing.

Flank-vault (Flanke) left over the side-horse. With the support on the pommels or one pommel and the neck (left end) the extended body rises from a double take-off to the left and about to the horizontal over the horse. The left arm is vigorously swung sideward as the body approaches the horizontal to assist it in the flight. As it clears the apparatus the right hand releases its grip with a thrust against the pommel, thereby assisting in

re-establishing the vertical position of the body. The right arm is then swung sideward. The gymnast should alight in the squat-stand with arms in the side-position directly behind the apparatus and within a space marked by the support of the two hands. Faults: Hips and knees bent, take-off to one side. Support not over opposite arm, feet apart.

Flank vault mount. The flank vault instead of continuing over the apparatus leads to some appropriate position upon the apparatus as in the other mounts. Faults: As in the vault.

Flank vault dismount. (Flanke in den Stand.) It occurs from some position on the apparatus from which the body may be swung through the flank vault position and into the squat-stand.

Rear vault left over side-horse. With support on the pommels the body rises to the right with a quarter turn right. The hips are thoroughly flexed, so that the closed and extended legs and ankles point obliquely fore-upward. The right hand releases its grip momentarily, while the body clears the apparatus with the back turned toward it (the left side leading), and then re-grasps the right pommel. The left arm is swung sideward as the right hand re-grasps. After the apparatus has been cleared the hips are vigorously straightened. Throughout the entire vault the chest is active and the head held erect. The gymnast should alight in the squat-stand, with the left arm in the side position, about an arm's length distant from the apparatus and in line with the right pommel which he has grasped. It is also performed over the long

horse and parallel bar. Faults: Knees bent, feet apart, turn not executed quickly enough, incorrect transfer from hand to hand.

Rear-vault mount. If the body is lowered to some designated position upon the apparatus when directly above it instead of clearing it, it becomes a mount.

Rear-vault dismount to the left. It consists of swinging the body from some position upon the apparatus into the position of flight occurring during the clearing of the apparatus in the rear-vault left. A preparatory vigorous backward swing of the legs precedes dismounts from most seats.

The straddle vault over buck. (Die Grätsche.) From a cross stand before the apparatus or leading to a running start with a double take-off and a support with both hands on the far end of the buck the body rises above the apparatus with extended legs straddled as wide as possible and hips slightly bent. With a forcible thrust against the buck the body is carried over it, the hips straightened, arms swung sideward and the legs closed as the gymnast alights in the squat-stand. Faults: Support on near end, weak thrust against the buck.

The straddle vault mount and dismount (Grätsch-auf- und absitzen) are obtained in the same manner as the previous mounts and dismounts.

The leg-swing vault right over buck. (Die Spreize rechts.) This vault resembles the straddle vault somewhat. Both legs, however, do not straddle the apparatus. The extended right leg is swung over the apparatus, the hands are momen-

tarily raised, and at the same time the body is carried to the left by the direction of the jump and the thrust against the buck. The left leg as well as the trunk remain in the vertical position. The legs are closed as the body approaches the left side of the buck in a cross position sideways right, the left arm is in the side position, but the right hand is replaced as the gymnast alights in the squat-stand.

The leg-swing mount and dismount (Spreiz-auf- und absitzen) which occur so frequently upon the horse and buck, but are also possible on other apparatus, are derived from the vault. When a leg-swing mount into a position occurs under a hand this should be stated; likewise whether the leg-swing is outward, away from the body, or inward, toward the body, and forward or backward. Sometimes it is also necessary to name the part of the apparatus upon which the position is to be assumed. When a turn is added to the leg-swing mount or dismount it is termed a *turn-mount* or *turn-dismount* (Schrauben-auf- und absitzen). The direction forward or backward, the degree of the turn, and the terminating position must be indicated. Faults: Knee bent, support not over opposite arms.

Sheep-vault over the side-horse. (Schafsprung.) From a double take-off with support on the pomels the body is powerfully propelled over the apparatus. The support is momentary, and the body is fully extended with the exception of the knees which are flexed so as to raise the feet backward and upward. The arms are swung sideward,

and the head and chest well raised during flight after clearing the horse and later in the squat-stand.

The stride-vault (Thief vault) *over the side-horse.* (Diebsprung.) The vault begins with a running start from a side-stand frontways and requires a single take-off either left or right. As the body leaves the floor from the take-off, which is about three feet distant from the horse, the pendant leg is forcibly swung over the horse and between the pommels. The take-off leg is bent, brought to the other leg as it begins to pass over the apparatus, and extended. As the body is carried over the horse the hands momentarily grasp the pommels, the legs are in the forward position, and the trunk slightly inclined backward. A push against the pommels adds to the momentum of the jump and brings the body into the squat-stand rearways with the arms in the side position. It is only executed on the side-horse. Assistance. *The stride-vault mount* leads to seats or to the support rearways on the horse. It can not be used as a dismount. Faults: Grasping pommels before leg is swung through, the one leg curled under, incorrect judgment of take-off.

Long vault over side-horse on assistant's shoulders. With a running start and a vigorous double take-off, the pupil leaps over the horse, with a thoroughly extended body. The hands do not touch the horse, but immediately take support on assistant's shoulders, who, standing close enough to the horse to enable the pupil to reach his shoulders with a jump, takes a step backward and lowers the pupil to a stand.

The long vault mount on the long horse without pommels is performed with a running start and a double take-off, support on neck. It generally leads into support lying position or a riding cross seat.

Fencers' vaults. Fencers' vaults are characterized by approaching the apparatus obliquely, by taking off from one foot, and by supporting on one arm only. These vaults (front, rear and flank) will be described as occurring over the long horse. They may be executed from a stand and a single take-off, one foot being placed backward, and from three to five or an indefinite number of steps, start. The starting position is from an oblique stand either close to the horse or on a line forming an acute angle with the long horse.

Fencers' rear vault left over the long horse. With a take-off from the right foot on the right side of the horse and support on the left arm the left leg and right arm are forcibly swung obliquely fore-upward. As the body rises, the right leg follows, bringing the extended legs together and flexing the hips, so that the feet will be raised head high. The left hand is raised and the right hand takes the support as the body clears the apparatus. The hips are vigorously extended on descending in the squat-stand with the right hand on the horse and the left arm sideward.

Fencers' flank vault, left over the horse. This vault is similar to the front vault excepting that there is but a quarter turn right executed about the length axis so that the right side will be turned toward the apparatus. The left side leads and the legs are extended and together, the take-off foot

following and closing to the left immediately. A vigorous thrust against the horse brings the body again to the vertical so that it may alight in the squat-stand rearways with both arms in the side position.

Fencers' front vault left over long horse. With a take-off from the right foot on the left side of the horse and with support on the right arm the body rises to the horizontal, assisted by a vigorous swing of the left leg which is immediately joined by the right. As the body rises a half turn right about the length axis is executed, so that the slightly arched body will be over the horse with its front surface facing it, and the left side leading. The left arm also assists with a vigorous swing upward and is lowered to the side position as the gymnast alights in the squat-stand. The right hand remains on the horse. The legs are together and the toes pointed during flight.

The mounts of the fencers' vaults are similar to those of the regular vaults.

Vaults are easiest executed upon such apparatus as are particularly adapted to the activities composing the vault and progress in difficulty of execution by performing them upon other less suitable apparatus. There is a further progression obtained by raising the apparatus and by adding turns to the vaults. Turns may occur after or before clearing the apparatus. When occurring before clearing the apparatus vaults are best designated as ——— vault sideward or backward.

Activities Common to Hang and Support.

The following activities are performed with slight variations in hang and support.

- (1) *Arm and hand exercises.*
 - (a) Hand hopping, jumping, grip changing and walking (traveling).
 - (b) Arm bending.
- (2) *Leg exercises.*
 - (a) Single and double foot, knee and leg raising or swinging.
 - (b) Straddling.
- (3) *Trunk exercises.*
Turning trunk and raising upper trunk.
- (4) *Swinging.*
 - (a) The short swings (not practical in support).
 - (b) The long swings.
- (5) *Turns about different axes.*
 - (a) About the length axis.
 - (b) About the breadth axis.
- (6) *Combined activities.*

Activities Peculiar to Certain Apparatus.**THE HORSE.**

The fore- and backswing of the leg beside the arm. In the fore- and backswing left the leg swings over the apparatus and around the left arm to a horizontal position, the body at the same time turning to the right. The entire body weight is supported by the left arm. The right leg is straight and pointed downward. The return movement reverses the action. There are two modes of execution, depending upon the movement to follow.

- (a) The leg swings sideward to the horizontal, forward, and downward to the horizontal.
- (b) The leg swings sideward to the horizontal, and forward in a horizontal plane to the horizontal position beside the arm.

Leg-swinging (Spreizen.) Leg-swings are designated easiest as forward or backward under left or right hand, and leg-circling as forward or backward and then the order of hands. Stating under which hand the leg is to be swung or the order of the hands under which it is to be circled simplifies the terminology considerably and does away with the various conflicting terms in use.

Example: Leg-swing left forward under left hand in the support on the side-horse.

Both legs and hips swing to the left, the upper part of the body leaning to the right, the weight being carried on the right arm. As both legs approach the top of the apparatus the left leg swings above it to the horizontal, forward, and across it under the left hand which momentarily releases its grip to let the leg pass, and then downward and to the right; the weight being again borne by both arms. The right leg on the rear side of the apparatus goes through the same sideward swinging movements as does the left leg. In all the leg-swings on the horse or similar supporting surfaces the pendulum swing of the whole body from the shoulders should be apparent. Performed in supports frontways and rearways.

In the cross support on the parallel bars the execution is quite different. If performed at the end of the bars the trunk and inactive leg are held per-

fectly still and in the correct support position. When done from a swing (body-swing) the leg to be swung under the hand leaves the other at the end of the swing, passes under the hand and joins the leg again at the other end of the body-swing. Forward this may be executed free or with gliding along the bar. When performed free it consists of a sudden and rapid movement produced by vigorous hip flexion.

Leg-circling (Beinkreisen). Example: Circle left leg forward under left and right hand (side-horse).

After the leg-swing forward as described above has begun its movement to the right, the body weight is transferred to the left arm and the leg-swing continued to the right almost to the horizontal, backward, across the apparatus, during which the right hand momentarily releases its grip, and then downward to the starting position. With the downward swing the body weight is again supported upon both arms. During the whole movement the leg is straight. The action takes place mainly in the left hip joint, accompanied by pendulum swing of the whole body. The figure described by the leg is elliptical rather than circular. It is also practiced in a more circular figure as a free circle of the leg. The position upon the apparatus and sometimes the nature of an exercise demand the more circular execution.

What has been termed "flank-circle" may be named "a circle of both legs" (Kreisen beider Beine). It resembles the circling of one leg and is also performed in the two modes described, i. e.,

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in oval form and in a more circular form. The last named is executed without the legs touching any part of the apparatus (free circle of both legs).

Turns about the length axis may be added to leg-swings and circling of the legs.

The scissors backward and forward. (Schere rückwärts, vorwärts.) The body swings backward to the horizontal position from where the extended legs cross each other. The body, while the legs are crossing executes a quick half turn and is then lowered to a riding or straddle seat. During the turn the hands are released and immediately regrasp.

In the forward scissors the legs swing forward above the apparatus to the horizontal and cross. A sudden turn with releasing the grip and regrasping also takes place. The two scissors are practiced from seats and support lying on the horse and from seats, support lying and support swinging on the parallel bar.

The scissors sideward. (Schere seitwärts.) This exercise is usually performed from a side support on the horse with one leg in front and the other leg in rear. It is generally preceded by a pendulum swing of the whole body. Both extended legs are swung sideward toward the horizontal with as little hip flexion as possible, crossed, and then again swung downward. The body weight is completely transferred to the supporting arm. The hand of the side toward which the legs are swung is raised, during which the legs swing sideward, cross, and return; it then regrasps. The opposite leg comes to the front. There are two modes

of execution. (Using the stride side support on the horse as starting position as an example) :

- (a) The swing is to the side of the leg in rear of the horse. This is the usual and easiest execution.
- (b) The swing is performed toward the side of the leg in front of the supporting surface (Flank scissors; Flankenschere). This is a more difficult form.

The long horse without pommels is principally used for vaulting although most of the above exercises may also be performed on it. It is particularly adapted for the long vaults and combinations of other vaults with the long vaults, as long-squat, long-straddle, long-stoop vault, etc. Distinctly peculiar to the long horse are the giant straddle and squat-vaults.

THE HORIZONTAL BAR.

I. Swingups and swingoffs. The swingups will be described from the derived hanging position which must of necessity precede them. Thus the knee-swingup will be described from the hand-knee-hang (knee-hang for short) and not from the hang. It should, however, be said that these swingups may begin from various positions which in turn lead to the derived hanging position essential for the particular swingup. They may start as follows :

(a) Dropping into a related derived hanging position from the position on the bar into which the swingup will again bring you.

(b) From the still hand-hang (with straight or

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bent arms, or preceded by arm bending) the body is suddenly turned backward about its breadth axis and the hips are bent (and the knees if necessary). This is followed by the leg activity essential to bring the body into the derived hanging position preceding the swingup. In this derived hanging position a pendulum swing of the body furnishes the necessary force to swing the body up forward or backward on the bar.

(c) From the short swing. The turnover backward follows the forward swing of the feet. From there on it resembles the previous exercise.

(d) From swinging (long swing). Toward or at about the end of the forward swing a sudden bending of the hips brings the body into the inverted balance hang, feet close to the bar. This is followed by the activity of the legs essential to attain the derived hanging position preceding the swingup.

(e) Dropping from support into the inverted balance hang and then proceeding as from swinging.

For the forward swingups the body should be well in front of a plumb line dropped from the bar when it is in the inverted hang, as in the position preceding the kipp. From here it may get a good swing as it combines with the position the leg activity leading to the mixed hang. For the backward swingups it should be in back of the bar but in the knee-hang. This may be obtained from the end of the backward swing.

From the various swingoffs the gymnast should alight on his toes in the squat-stand with arms in

the side position or at the side of the body, and from here straighten to the fundamental position.

The underswing. (Der Unterschwing.) It generally begins from the support. The body falls backward, simultaneously flexing the hips, so that it passes through the inverted balance hang and then swings onward alighting in the squat-stand. After passing through the inverted balance hang it may swing to the stand without or with an arching movement of the trunk. In this movement the body passes through an arc and is well arched instead of swinging to the stand in a straight line from the bar to the floor. The arms are swung overhead as the hands leave the bar and immediately lowered into the side position. It is also performed from a stand, a hang, or from the backward swing and leads to either a stand or a hang.

The underswing is a part of a great many swing-offs and although not particularly mentioned, should follow all exercises where it is possible; e. g. the knee-, crotch-, seat-, swingoffs.

The knee-swingup. It is performed forward and backward as an inner and outer knee-swingup left, right, and on both knees with various grips. When performed on one knee it is designated as inner (or outer) knee-swingup left forward (or backward). It may also be executed left beside right hand and vice versa. On both knees it may be designated as the double knee-swingup (direction) when both legs are between the arms, and as a straddle knee-swingup when the legs are outside of the arms.

(a) The single knee-swingup. From a knee-

hang (see hangs and derived hangs) the other leg, fully extended, is vigorously swung downward and backward, thereby raising the body above the bar. In the knee-swingup backward the extended leg is swung forward and upward. The arms assist by vigorous pulling.

(b) The double knee-swingup. It resembles the single-knee-swingup, but has not the assistance obtained from the pendant leg and is therefore more difficult. To overcome this a larger swing should be obtained in the double knee-hang and the arms more actively employed.

Both exercises lead to seats on one or both thighs on the bar and start from inverted balance hang.

The knee-swingoff. (*Knieabschwung.*) When executed backward with upper grip the leg (or legs) squat forward quickly and the body passes rapidly through the inverted balance hang and then swings off forward either to a long swing or to a squat-stand with arms raised sideward.

In the forward knee swingoff the body turns over forward suspended by hands and knee (or knees), generally with under grip, and after it has swung beyond the vertical leading to the bar, the leg is quickly squatted forward so that the gymnast comes to a hang. This hang may be momentary, immediately followed by dropping to a stand, or the gymnast may remain in it.

The forward knee-swingoff is also done as follows to a stand: The gymnast pushes off from hands and knees with a powerful thrust, after he has turned over forward as described above, and

is passing beyond the horizontal on the other side of the bar. This thrust must be strong enough to enable him to draw his leg (or legs in the double) from off the bar and bring his body into a vertical position. He alights in the squat-stand with arms in the side position. These exercises are rather difficult and care must be taken when learning them.

The free knee-swingoff is done from hanging by the knees (without grip of hands) from the still hang or from swinging. From the still hang it requires a forceful thrust against the bar to right the body so it will alight in a vertical position. From the swing the correct moment to snap from the bar must be selected. It occurs slightly before the end of the backward swing. The gymnast alights as in the other exercises.

The crotch-swingups. (Mühlenaufschwung.)

These exercises are defined as those of the knee-swingups, substituting the word crotch-swingup. The various modes of execution are:

The single inner and outer crotch-swingup.

The straddle (crotch-) swingup.

It is not performed singly beside the opposite hand, nor as a double crotch-swingup.

The execution resembles the knee-swingup. There is, however, no bending of the knee, the leg being kept perfectly extended and gliding along the bar as the body rises above it. A vigorous straightening of the hips added to the pulling motion of the arms assists considerably in raising the body above the bar. Various grips.

The crotch-swingoff. (Mühlenabschwung.)

The swingoff forward and backward are the same as those of the knee-swingoffs.

Hip-swingup backward into support frontways. (Felgaufschwung.) The straight legs are quickly swung forward and upward, passing over the bar. The arms are forcefully flexed and assist in drawing the body to a support frontways. Executed from the swing the body alights with force on its hips if no effort is made to resist this.

The hip-swingoff forward from support frontways. (Felgabschwung vorwärts, rückwärts.) The body turns over forward from the support, lying upon the hips, and swings into the bent arm or straight arm hang from which it drops to a stand. It may also lead to the long swing if a thrust from the hips takes place as it turns over forward.

From support rearways it is performed backward and terminates in the stand rearways. That is, the body must swing underneath and beyond the bar and then drop to a stand with a whole turn backward about its breadth axis. Various grips. (Care.)

The hip-pullup backward (Felgaufzug rückwärts) into support frontways. The legs are slowly raised forward and upward, bringing the feet to the bar, while the arms are kept straight. The legs are then slowly drawn over the bar, the trunk following them, by bending of the arms. When the body has passed sufficiently far over the bar it is straightened into the support. Various grips.

II. The circles. (Umschwünge.) The circles on the horizontal bar are generally named according to the part of the body forming the pivot for the circle. They will be described as beginning from a definite position above the bar necessary for the ensuing circle. The parts not active are to be kept in the fundamental position as much as the exercise permits. This should be particularly observed of the head and chest.

The single knee-circle backward. (Knieumschwung.) From a seat on thigh, upper grip, the entire body is forcibly thrown back-upward, so that the bar strikes the knee-socket. The pendant leg, which is perfectly rigid, is simultaneously swung in the same direction. The force with which the knee strikes the bar changes the direction of the swing to downward, to which that of the leg is added, and the body describes a circle about the bar. The head, trunk and leg are kept in a straight line during the circling. It is performed between (inner) and outside of (outer) the hands.

The double knee-circle backward. It is performed with both legs between or outside of the hands and resembles the single knee-circle in execution.

The single knee-circle forward. It starts from the same position as the backward circle but with under grip. A raising movement which brings the knee socket to the bar precedes the vigorous forward and downward swing of the trunk aided by the swing of the pendant leg. In both circles (forward and backward) there should be a tendency to swing in as large a circle as possible.

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The double knee-circle forward. As the single with both legs either between or outside of hands.

The crotch-circles. (Mühlenumschwung.) They are executed forward (under grip), backward (upper grip), and sideward (outer grip), and begin from a position on the bar in which the chest is well arched, the head held high, the extended legs astride with feet an ordinary stride's length apart, and the bar passing under the crotch. The body is forcibly swung in the direction indicated.

The forward and backward circle is easiest if preceded by a slight raising of the body so that the bar will pass under the forward thigh. The position of the body does not change during circling.

The hip-circle backward (Felgumschwung rückwärts). From support frontways, upper grip, swing the extended body backward into the free support. As it strikes the bar with the hips it circles around the bar. With the descending movement upon the bar, the trunk is dropped backward and the feet swung forward assisting the circling. It should be performed with straight hips, though they are usually bent in beginners.

PARALLEL BAR.

Swinging in support (Stützschiwingen). Termed support swinging for short. It is only performed forward and backward and with a perfectly extended body. The shoulder joint forms the pivot. At the end of the backward swing the body is arched, the hips are slightly bent at the end of the forward swing.

The intermediate swing (Zwischenschwung.) This consists of a support swing between two parts of an exercise and is used to link these parts together. It may be a backward, forward, back-forward or fore-backward support swing.

The swinging from fore-arm support (Schwungstemme vom Unterarmstütz). It is executed backward and forward to seats, supportlying and support. When performed backward the body should swing to the horizontal position or above it and the arms straightened with a thrust against the bar as the body reaches its highest point. The body must be kept well arched. In the forward execution the body rises as the swing is approaching its highest point. The hips are slightly bent. The legs should be kept extended and firmly closed in both exercises.

The dipswing. (Knickschwung.) It consists of an arm bending and straightening performed with the pendulum motion of the body. The arm bending begins at the moment when the body seems to have reached the end of its swing and is just about to begin its movement in the opposite direction. If this moment is not precisely selected it mars the exercise. The arm straightening occurs gradually as the body rises toward the horizontal and is completed when the body reaches the highest point of its swing.

There are many exercises that, although not distinctly peculiar to the parallel bars, contain some feature which is characteristic of their execution on the parallel bars. They have been previously de-

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scribed and may be referred to. The most important are:

The leg-swings and circles under the hand. Seats and seat changing. Scissors backward and forward. The various vaults and mounts particularly on the side parallel bar, terminating in the support or another position. The various dismounts from seats and from the support.

GRADED LESSONS.

Horizontal Bar.

I.

Topic: Hang with various grips and simple leg exercises in the hang; arm exercises in hang-lying; cross hand, foot and knee hang.

1. Jump to hang (side and cross) with various grips and intermediate jumps (in one turn).
2. Jump to hang (side and cross): linked knee- and leg-raising and swinging fore-upward.
3. Jump to hang: double knee-raising (swinging) fore-upward.

Waist-high (or lower):

4. Hang-lying: arm bending, double grip changing.

5. Hang-lying: arm bending to upper arm hang.

Shoulder-high (or higher):

6. Cross-stand: cross hand-foot hang or hand-knee (single) hang.
7. As 6, then arm-bending.

Emphasize: correct jump to hang; correct hang position as width of grip; chest and head up (active hang); legs straight; back straight; toes pointing downward. Also correct hang-lying position.

Note: Difficult exercises not mastered in a lesson should be reviewed at a future time.

II.

Topic: Traveling and hand-jumping in the hang; development of inverted balance-hang (5, 6, 7) on head-high bar from stand.

Jump-high.

1. Traveling sideward left, right; also to span-hang.
2. Traveling forward and backward.
3. Hand-jumping in place and sideward left and right.
4. Hang, raise knees, straighten forward and lower slowly four times.

Head-high.

5. Stride-stand (to obtain leg-swing), arms bent; swing to *inverted squat-hang*, lower slowly to stand, to bent hang.
6. As 5, then single, alternate, linked, double leg-straightening close to bar and return. Emphasize; correct inverted balance-hang; i. e., avoid sinking of hips, keep knees at bar.
7. As 5, but swing extended legs to inverted balance-hang; lower slowly to stand, to bent hang.

III.

Topic: Turn-traveling forward and backward; bent hang with various grips and exercises in it.

Jump high.

1. Turn-traveling forward.
2. Turn-traveling backward.
3. Raise knees fore-upward, straighten legs, lower slowly.

Reach- to jump-high.

4. Jump to bent hang (side, cross) with different grips and intermediate jumps (in one turn).
5. Jump to bent squat-hang, different grips and intermediate jumps (in one turn).
6. Jump to bent hang, then double knee-raising three times.
7. Jump to bent hang, then linked leg-raising forward.
8. Jump to bent hang, then leg-straddling side-ward.

Emphasize: slow sinking to hang when not jumping off from bent hang; correct posture in bent hang, i. e., head and chest up, shoulders back, legs straight and toes pointing, grip fairly wide.

IV.

Topic: Leg-exercises in the inverted balance-hang; hand and arm exercises in the bent-hang.

Reach-high.

1. Review:

- (a) inverted squat-hang;
- (b) inverted balance-hang.

Progression by (1) raising bar; (2) by slow raising of extended legs from the hang.
(Aim.)

2. As 1 to inverted balance-hang, then straddle legs.
3. As 1 to inverted balance-hang, alternate leg-swing under bar beside hand.
4. As 3, but both (straddle) under bar.
5. As 3 to outer knee-hand hang; return to balance-hang.

Emphasize: slow lowering of the extended legs from the balance-hang in each exercise.

6. Alternate grip-changing in the bent hang.
7. Change to single (double) arm hang from the bent hang.

The elbow hang may precede 7.

V.

Topic: Squatting exercises to knee-hangs from inverted balance-hang.

Jump-high.

1. *Running jump to hang-swinging.* Double take-off from board; move board with each jump. Jump-off at end of first, second, third back-swing.

Emphasize: correct gripping at once, straight legs. Care in assisting when jumping on and off; correct moment for jumping off must be chosen.

2. Hang, double leg-raising to inverted balance-hang; slow lowering. The speed of leg-raising may be adjusted to ability of the class.

Emphasize the value of slow raising. Permit swinging if strength for raising is lacking.

3. As 2, then alternate squatting forward to single knee-hang.
4. As 2, then double squatting forward (three times) to double knee-hang. (Also free knee-hang.)
5. As 2, then linked squatting forward (four times) to single knee-hang.
6. As 1, then inverted balance-hang at end of second forward swing; lower slowly to hang.

7. As 6 and at once squat left to inner knee-hang.
(Aim.)

VI.

Topic: Leg-swing in support; turn-over with squatting to various inverted hangs and hangs rearways.

Chest-high.

1. Support: alternate leg-swing sideward on bar; over bar beside hand.
2. Support: leg-swing outward forward under hand and return.

Emphasize: correct support, grip shoulder-width apart, not lying on bar; straight arm and leg in the leg-swing.

3. As 2; but left and right to support rearways more like a side-seat) and return. (Assistance from in front. (Aim.)

Head-high.

4. Half turn-over backward to nest-hang.
5. Inverted balance-hang frontways, squat forward to *balance-hang rearways*, lower to stand rearways (also to hang).
6. As 5 from balance-hang rearways, straighten to *inverted hang rearways*; bend hips and lower to stand rearways.
7. *Whole turn-over backward through squat-hang to stand rearways*; return (jump and turn-over forward.)
8. As 7, but to squat-hang rearways instead of stand and return to bent hang.
9. Aim. As 8 with extended legs (i. e., *hang rearways*).

Progression by raising bar ; i. e., execution (a) from stand ; (b) from jump to bent hang ; (c) from still hang.

VII.

Topic: Hand-springing in the long swing ; turning to inverted hangs in the long swing.

1. Running jump to hang-swinging, at end of forward swing :
 - a) Turn-over to inverted squat-hang, straighten to hang-swinging and repeat (three times) ;
 - b) As a, but balance-hang.
 At end of backward swing :
 - c) Hand-hopping left and right in place ;
 - d) Hand-jumping in place ;
 - e) Hand-jumping sideward ;
 - f) *Hand-jumping with hand-clapping.*
(Aim.)

Reach-high.

2. Jump to bent hang with fore- and back-swing (four times.) Jump-off backward.
3. Bent hang: Travel sideward, left and right, backward and forward. (Aim.)
Emphasize form in swinging.

VIII.

Topic: Development of knee-swingup.

Head-high.

1. Half turn-over (slow) to inverted balance-hang ; leg-swing to outer knee-hang and knee-swingup with other arm on bar ; return to stand through balance-hang.

2. As 1, but squat and *inner knee-swingup* after several swings without other arm on bar.
3. As 2, but *outer knee-swingup* after several swings.

Emphasize: vigorous swingup of the thoroughly extended pendant leg to assist in the knee-swingup.

4. As 2, in one additional swing back and forth. (Aim.)
5. As 3, in one additional swing back and forth. (Aim.)

Progression by raising bar; i. e., 1) from reach-high bar; 2) from jump to bent hang; 3) from still hang.

Waist-high.

6. Flank, front and rear vault from running start and stand. Prepared on side horse.
Repeat frequently to develop strength and courage, not for form. Emphasize form later.

IX.

Topic: Turns in hang frontways about reverse under grip and turns in hang rearways.

Jump-high.

1. Hang, one hand reverse under grip, and whole turn about this arm; return.
2. As 1, but regrab with free hand with reverse under grip and repeat; continue.
3. Bend arms to bent hang.
4. As 3, with single and double leg-raising forward.
5. Bend arms, turn over backward to inverted squat hang.

6. As 5 to hang rearways; return through balance-hang.
7. As 5 to *hang rearways, then whole turn and regrasp.*
8. Try 7 with keeping arms and legs straight (aim) during the turn to balance-hang.

NOTE:—If 5-8 are too difficult from still hang, permit execution from jump to bent hang, etc. Suggest the value of execution from still hang.

X.

Topic: Knee-swingup and circles.

Head-high.

1. Inverted balance-hang, leg-swing to outer knee-hang, return.
2. As 1, with immediate outer knee-swingup; knee-swingoff through balance-hang. Swing free leg vigorously.
3. As 2, but inner knee-swingup; *drop to knee-hang and repeat.* Emphasize straight arms during dropping.
4. As 3, then *knee-circle backward.*
5. As 4, but *forward*, under grip.

Emphasize the need of straight arms when dropping from seat on thigh and the importance of sudden (backward circle) catching in the knee joint; bent arms break the swing.

Progression by raising bar.

Waist (to shoulder) high.

6. Review: Flank, front, and rear vault from run and stand.

Emphasize form on low height, practice for strength on higher bar. Progression by raising bar.

XI.

Topic: Outer knee-swingup and hand-turn from swinging; progression of hip-swingup.

Jump high.

1. Running jump to hang-swinging; review
 - a) hand-jumping sideward left and right.
 - b) hand-jumping in place with hand-clapping;
 - c) balance-hang; and add
 - d) *outer knee-swingup*; knee-swingoff to hang;
 - e) *hang-turn* ($\frac{1}{2}$) about arm retaining grip.

Head to reach high.

2. Hip-swingup, various grips (under to upper); jump off backward.

Jump high.

3. As 2, but from jump to bent-hang; lower forward through balance-hang.
4. As 3, but *hip-swingoff* forward.

NOTE:—The strength of the class may be tested on the hip-swingup on jump high bar and if equal to it, exercises 2-4 taken through; if not, begin on head high bar. Repeat at future time.

XII.

Topic: Under-swing from stand and support.

Chin high.

1. *Under-swing from side stand* frontways, upper

grip, over rope about 30 inches distant; raise after each under-swing. (As the rope approaches height of bar, raise the bar to head or reach high). Emphasize balance-hang and forceful extension of hips as you swing forward.

Head high (later reach and jump high).

2. *Under-swing from support.* Emphasize dropping without taking extra swing, and with straight arms, so that the hip-bending does not occur too soon; during the momentary balance-hang the shins or knees are brought near the bar; then follows the forward swing of the legs and hip extension.
3. Review: Outer knee- and hip-swingup.

XIII.

Topic: Knee-swingups (and swingoffs) from hang-swinging.

Jump high.

1. Running jump to hang-swinging and outer knee-swingup; knee-swingoff.
2. As 1, but inner knee-swingup.
3. Review; hip-pullup; lower forward to balance-hang.
4. As 1, leg-swing to support and under-swing. (Review.)
5. As 2, leg-swing to support and under-swing. Emphasize correct form during swinging and under-swing; prevent falling forward after under-swing from jump high bar.

XIV.

Topic: Knee- and hip-swingups followed by knee-circles forward and backward and crotch-circles forward.

Head high.

1. Inner knee-swingup, upper grip; *crotch-circle forward, under grip*; knee-swingoff forward to bent-hang. Emphasize: straight arms during crotch-circle; raise body slightly before beginning the crotch-circle.
2. Inner knee-swingup forward and three knee-circles backward; knee-swingoff backward.
3. As 2, but knee-circles and swingoff forward, under grip. Emphasize form in 2 and 3 as they are reviewed.
4. Hip swingup and outer knee-circles backward; leg-swing to support and under-swing.
5. As 4, but crotch-circles forward.

XV.

Topic: Hip- and outer hip-swingup from bent hang swinging.

Jump high.

1. *Under-swing from the jump.* Legs are raised as the arms bend immediately following the jump; passing through the inverted balance hang, with knees at bar, the jump-off forward follows. Practice frequently in rapid succession to acquire strength; later for form.
2. Jump to swinging in the bent hang and
 - a) outer knee-swingup;
 - b) hip-swingup.

Finish with under-swing from support and lowering through bent support.

3. As 2, followed by
 - a) (leg-swing and) crotch-circle forward;
 - b) (leg-swing and) outer knee-circle backward.

Finish with knee-swingoff backward to a hang.

XVI.

Topic: Hip-circle.

Shoulder high.

1. Hip-swingup; swing backward to free support four times. Under-swing.
2. Hip-swingup; *hip-circle backward*; under-swing.

Preparatory: Elbow-hip circle forward and backward. In the regular hip circle backward the pupil must accustom himself to lying on the abdomen as the body returns from the preliminary swing, and then swing the upper part of the trunk backward at the same time. Practice frequently to acquire the skill.

3. As 2; jump to stand and under-swing. (Review crotch-circle forward.)
4. Running start and front, rear and flank vaults.

XVII.

Topic: Swing start from the jump; hip-swing-up from the swing.

Jump high.

1. *Swing start* from the jump; jump off at end of back-swing. Resembles under-swing from

the jump, but instead of the jump-off, the body is vigorously swung forward and the arms are straightened. There is a tendency to keep the arms bent.

2. As 1, with hand-jumping in place, sideward left, right, and hand-jumping in place with hand clapping, at end of back-swing. Also squat to inverted balance hang rearways and sink to hang. The activities in the swing are added to get frequent repetitions of the swing start.
3. Swing start, *hip-swingup with forward swing; under-swing.*

Preparatory: Leg-raising to inverted balance hang from the swing.

XVIII.

Topic: Hip- and knee-swingup from the swing-start taken from the jump and followed by circles.

Jump high.

1. Jump, swing-start and
 - a) outer knee-swingup and swingoff;
 - b) inner knee-swingup and swingoff;
 - c) As a, leg-swing backward and under-swing;
 - d) As b, leg-swing backward and under-swing;
 - e) Hip-swingup; hip-swingoff.
2. As 1, and add knee- and hip-circles backward.

XIX.

Topic: Crotch-circle backward; swing start from still hang.

Head high.

1. Inner knee-swingup forward, *crotch-circle backward*; under-swing.

Emphasize straight arms and legs and vigorous backward swing; the bar is across the thigh, slightly below the crotch. Frequent repetition; alternate under-swing from support and stand.

2. As 1, and review crotch-circle forward, hip-circle backward; sink backward through bent support.

Jump high.

3. *Swing start from the still hang*, jump off at end of backward swing.
4. As 3, and half-turn at end of backward swing; continuously. Phases of the swing start; the arm bending, leg raising, tilting to inverted balance hang, the forceful extension of hip, forward swinging of body, and arm straightening.

XX.

Topic: Double knee-circle backward; hip- and knee-swingup from swinging followed by knee-, crotch-, double knee- and hip-circles. Shoulder high.

1. Support, half-turn, and *double knee-circle backward*; jump off forward. Assistance at the moment the circle is about to be completed. Practice frequently. Emphasize straight arms in dropping and striking the knee joint with a snap.

Jump high.

2. Slow leg raising to inverted hang rearways, *return to frontways and hip-pullup*; under-swing.
3. Swing start and hip-swingup; under-swing.
4. Swing start and outer and inner knee-swingup followed by
 - a) inner knee-circles forward and backward;
 - b) outer knee-circles forward and backward;
 - c) inner crotch-circles forward and backward;
 - e) hip-circle backward.

Side Horse.

Every exercise is executed to the left then to the right.

I.

Topic: Supports and seats on near side.

1. In support frontways; single and alternate leg-swing sideward.
2. Jump with $\frac{1}{4}$ ($\frac{1}{2}$) turns to cross-seat on end and in saddle.
3. Jump with $\frac{1}{2}$ turns to support rearways.
4. As 2, intermediate jump and repeat to right. (Simple combination.)
5. As 1, and intermediate jump to seats.
6. Jump to free support and straddle legs, knee-swing, foot-swing.

Emphasize: straight arms, raised chest, straight legs in support; knee-bending upon alighting.

NOTE:—Lessons containing difficult exercises not mastered in one lesson should be reviewed at a future time.

II.

Topic: Seat changing from end to end of horse.

1. Change from cross-seat on neck to cross-seat on croup.
2. *Front vault mount* to riding-(cross-stride) seat on ends; front vault dismount.
3. Front vault mount on end; (a) intermediate jump and repeat; (b) intermediate jump and mount on other end.
4. As 3 b, through momentary support; i. e., no intermediate jump.
5. Review exercise in free support.
Emphasize: straight arms in support, straight legs; knee-bending upon alighting.

III.

Topic: Development of flank vault.

1. Jump to support frontways with:
 - a) *Leg-swing left* (outward forward) under left hand and return.
 - b) As a, intermediate jump and repeat.
 - c) As a, intermediate swing and repeat. (Try the intermediate swing separately.)
 - d) As a, and immediately right. (Simple combination.)

Development of Flank Vault.

2. Grip on end and pommel:
 - a) *Flank vault mount* to side-seat.
 - b) Flank vault mount to stand.

3. Grip on pommels:

- a) Flank vault to support lying.
- b) *Flank vault to stand.* (Aim.)
- c) Flank vault to support rearways.

Emphasize: extended legs and arms in leg-swings, vigorous side-swing of both legs in the vault.

Practice: (1) Vaulting for strength, repeating frequently and in rapid succession the vault to be learned; (2) Vaulting for form. (Crit-icise.) Proceed likewise in all vaults that follow.

IV.

Topic: Single leg-swings under same hand, alternated with leg-swing outward forward with $\frac{1}{4}$ and $\frac{1}{2}$ turns.

1. Leg-swing left under left hand, return, and immediately right. (Review.)
2. *Leg-swing outward forward with $\frac{1}{4}$ turn to riding seat; front vault dismount.*
3. *Leg-swing outward forward with $\frac{1}{2}$ turn; leg-swing outward backward to stand.*
4. As 1, intermediate jump, and then 2.
5. As 1, intermediate jump, and then 3.
6. Review: Flank vault over ends.

V.

Topic: Leg-swings outward backward from support rearways; knee-mounts and knee-jumps; sheep vault.

1. Support rearways: leg-swing left *outward backward* under left hand and return.
2. As 1, intermediate swing and repeat.

3. As 1 and immediately right. (Aim.)
4. Double knee-mount in saddle or on ends.
5. Single knee-mount; simultaneous change of position (several times.)
6. As 4 and *knee-jump* (a) forward; (b) backward.
7. As 5 and knee-jump (a) forward; (b) backward (single.)
8. As 6 a with $\frac{1}{4}$ and $\frac{1}{2}$ turns. (Aims.)
9. *Sheep-vault*. (Aim.)

VI.

Topic: Development and variations of the front vault.

1. Repeat exercises 1 a-d of lesson III: leg-swings outward forward and return from support frontways.
2. Front vault mount to riding- (cross stride-) seat in saddle.
3. Front vault to stand.
4. High *front vault to stand*. (Aim.)
5. Front vault with $\frac{1}{4}$ turn toward apparatus.
6. Front vault left (over neck); grip on pommel and croup. Also with object on neck.
7. Front vault with both hands grasping one pommel. (Aim.)
8. Review flank vault and knee-jump. (Progression.)

VII.

Topic: Development of rear vault.

1. Repeat exercises 1-3 of V. (Leg-swings outward backward from support rearways.)

2. Grip on pommel and end, jump to cross-seat, facing end.
3. Grip on pommel and end, jump to closed seat, facing end.
4. Rear vault mount to riding-seat (cross stride-seat). Rear vault dismount.
5. Rear vault over end (neck and croup.)
6. Rear vault mount to riding-seat (in saddle), grip on pommels.
7. Rear vault, grip on pommels. (Aim.)

VIII.

Topic: Leg-swings from frontways and rearways and $\frac{1}{4}$ and $\frac{1}{2}$ turn dismounts forward.

1. Support frontways: leg-swings under the same hand and $\frac{1}{4}$ ($\frac{1}{2}$) turn dismounts.
2. Same from support rearways.
3. Frontways: leg-swing under the same hand and return, intermediate jump and as 1 with (a) the same leg, (b) opposite leg.
4. As 3, but intermediate swing instead of intermediate jump.
5. (Aim.) As 3, but immediately leg-swing to opposite side and turn dismount.
6. Rearways: leg-swing under same hand and return; intermediate swing and repeat leg-swing, but turn dismount.
7. (Aim.) As 6 combining left and right through momentary support and turn dismount.
8. Review rear vault (for strength; for form.)

IX.

Topic: Development of Scissors.

Use front and rear vault mount and dismount.

1. Riding-seat on end, scissors backward. (Developed from support-lying from seat, $\frac{1}{4}$, $\frac{1}{2}$ turns.)
2. As 1, but forward.
3. Review front and flank vault.
4. Review knee jumps forward and backward.
5. Review sheep vault.
6. Review leg-swing dismount with turns.

X.

Topic: Squatting leading to development of squat vault.

1. Single and *double squat* mount to squat stand (saddle).
2. Repeat with intermediate jump.
3. Single squat stand and simultaneous change of leg positions.
4. Squat to stride-support; follow to rearways.
5. Squat to stride support and return.
6. Squat to support rearways; squat backward successively.
7. Squat to support rearways; *squat backward* with both.
8. Squat to stride support; *simultaneous squatting* backward and forward, $\frac{1}{4}$ turn dismount.
9. Double squat stand with immediate straightening to straight stand; jump off.
10. *Squat vault* with releasing grip. (Emphasize forceful thrust from pommels.)

XI.

Topic: Development of squat vault.

1. Repeat scissors backward from riding-seat on end.

2. Repeat scissors forward from riding-seat on end.
3. Squat to support, rearways and
 - a) Squat backward singly;
 - b) Squat backward with both.
4. Stride support: simultaneous squatting, $\frac{1}{2}$ turn dismount.
5. Single and double squat mount to straight stand.
6. Squat vault.
7. Squat vault *for distance* (over wand held horse high).
Emphasize: forceful thrust from pommels.

XII.

Topic: Development of wolf vault.

1. Frontways: leg-swing outward forward (under hand) and return executed left and right with
 - a) intermediate jump;
 - b) intermediate swing. (Review.)
2. Single knee mount with leg-swing sideward (free).
3. Single squat stand with leg-swing sideward on horse.
4. Single squat stand with leg-swing sideward (free).
5. Single knee mount with leg-swing sideward; change positions.
6. Single squat stand with leg-swing sideward; change positions.
7. Single squat stand with leg-swing outward forward.
8. Wolf (squat-straddle) vault.

XIII.

Topic: The inward and forward leg-swing (i. e., under opposite hand) and return.

1. Stand to stand: *leg-swing inward and forward* (under opposite hand) and return.
2. As 1, intermediate jump and repeat.
3. As 1, from support to support.
4. As 2, but *intermediate swing*. (Aim.)
5. Review:

<ol style="list-style-type: none"> a) flank vault b) front vault c) rear vault d) squat vault e) sheep vault 	}	for strength and form by raising apparatus.
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XIV.

Topic: Development of straddle vault. Variations of rear and flank vault.

1. Rearways: review leg-swing outward backward (under same hand) and return.
2. Jump to straddle stand; intermediate jump and repeat (three to four times.)
3. Jump to straddle stand; straighten immediately.
4. Run, *straddle vault forward*. (Assistance.)
Repeat for strength and form.
5. Review rear vault with $\frac{1}{4}$ turn toward apparatus.
6. Review flank vault with $\frac{1}{4}$ turn from apparatus. (Flank to front vault.)
7. Review wolf vault for strength and form.

XV.

Topic: Turn-legswing backward from support frontways to different seats.

1. From stand, from support frontways:
 - a) *Half turn with leg-swing* left backward to side stride seat;
 - b) *Three-quarter turn with leg-swing* left backward to riding seat.

The left leg swings backward inward. Repeat for form with various dismounts.

Variation and progression:

2. Review wolf vault over ends (grip on pommel and end).
3. Review squat vault for height (hold wand at far side).
4. Review straddle vault; raise apparatus.

XVI.

Topic: Development of thief vault.

1. Review inward forward leg-swing (opposite hand) and return. Repeated by joining the swings with (a) intermediate jump; (b) intermediate swing. Take-off equals distance of leg-swing forward.
2. Run and leg-swing jump to stride support in saddle. (Take-off right brings left leg forward.)
3. As 2, to stand in saddle.
4. Thief vault to side seat; other leg squats forward.
5. Thief vault to support rearways.
6. *Thief vault to stand.* (Aim.) Repeat for strength and form.
7. Free jump over horse.

XVII.

Topic: Turn-legswings backward from support rearways to various seats.

1. Support *rearways* in saddle:
 - a) *Half turn leg-swing* left forward to side stride seat (end).
 - b) Three-quarter turn leg-swing left forward to riding seat.

The left leg swings forward inward. Repeat for form with various dismounts.

2. Thief vault for distance by moving take-off. (Progression.) Repeat for strength and form.
3. Review flank, front and rear vaults with quarter turns.

XVIII.

1. Review leg-swing under same and opposite hand from support frontways. (Aim.) Leg-swing left forward under left hand, return, and leg-swing left forward under right hand; dismount.

Variation and progression:

2. Wolf vault left *with quarter turn right*.
3. Wolf vault left *with quarter turn left*. Repeat for form.
4. Repeat thief, straddle and wolf vault for height.

XIX.

1. Three-quarter turn leg-swing mount backward and forward from support frontways and rearways (review) respectively.
2. Review scissors backward and forward from riding seat.

3. Review leg-swing under same hand from support rearways.
4. Review squat, sheep and front vault for height.

XX.

Topic: Leg-circle under opposite and same hand.

1. Leg-circle left under right and left hand in (a) two movements; (b) one movement. To be practiced for strength and form from a running start, a stand, and finally from support.
2. Review: Flank, front, rear, squat, sheep, wolf, squat-straddle, thief vaults for form and height.

Parallel Bars.

Every exercise is performed left, then right.

I.

Topic: Leg and trunk exercises in support; jumps to seats in front of hands and rear vault dismount from these.

Breast high.

1. Jump to support, intermediate jump and repeat (four times.)
2. As 1, then double knee-raising forward, straighten forward and lower slowly (three times.)
3. Turn trunk in support.
4. Jump to inner cross-seat in front of left hand, swing backward and intermediate jump to *cross-seat* in front of right hand (four times.) Rear vault dismount from last seat.
5. As 4, but to *riding-seat*.

6. As 4, but to *straddle seat*.

7. As 4, but to *outer cross-seat*.

Emphasize: straight arms in support, chest up, hips straight; correct seats.

Note: Difficult exercises not mastered in a lesson should be reviewed at a future time.

II.

Topic: Hand hopping and jumping in support.

1. Support: alternate hand hopping in place.
 2. Support: alternate hand hopping in place with striking chest.
 3. Support: alternate hand hopping forward.
 4. Support: alternate hand hopping backward.
 5. Support: single and double leg-raising forward.
 6. Support: alternate hand hopping forward on oblique bars.
 7. Support: $\frac{1}{4}$ turn to side-support and return.
 8. Support: hand jumping forward; backward.
- Emphasize: correct posture during hopping and jumping.

III.

Topic: Rear and front vaults from swings; seat changing moving forward, moving backward.

1. Fore-, back- and *fore-swing to rear vault*.
2. As 1, add *back-swing to front vault*.
3. Repeat 1 with $\frac{1}{4}$ turn toward apparatus.
4. Some seat in front of hands, intermediate swing and front vault.
5. Some seat in rear of hands, intermediate swing and rear vault.

6. *Seat changing moving backward* (a) from a given seat to same seat; (b) from a given seat to a different seat. From inner seat to outer seats.
7. *Seat changing moving forward* (as under 6).
 - a) Straddle seat changing forward; straddle seat front of hands, *fall and grasp forward, hips straight*, and front vault dismount.
 - b) Straddle seat front of hands, grasp forward and intermediate swing to seat.

Additional lessons with different changes of seats may be arranged.

Emphasize: correct seats.

IV.

Topic: Swings over both bars from one seat to another in front and in rear of hands. Development of scissors. Leg exercises in swinging.

1. Swinging (center) with leg-straddling, knee-swing, leg-crossing, single and double squat-stand in front and rear of same and opposite hand.
2. Back-swing and *scissors backward*; intermediate swing and front vault. Preparatory exercises for scissors backward consist of cross leg-swings with $\frac{1}{4}$, then $\frac{1}{2}$, turns on the single bar; then scissors over both; first execute on horse.
3. *Over-swings from one seat to the same or different seat in front of hands*:—from outer

cross to outer cross- (riding-) seat, etc.; rear vault.

4. As 3 from seats rear of hands:—from riding-seat a riding- (cross-) seat, etc.; from vault. Emphasize: correct seats.

An additional lesson can be arranged by omitting 4 the first time and then taking it with a review of 1 and 2.

V.

Topic: Hand-hopping at end of both swings. $\frac{1}{2}$ turn-mount from support to straddle seat.

1. Swinging with
 - a) Alternate hand-hopping (left and right) forward at end of each fore-swing.
 - b) Alternate hand-hopping forward at end of each back-swing.
 - c) Alternate hand-hopping backward at end of each back-swing.
 - d) Alternate hand-hopping backward at end of each back-swing and forward at end of each fore-swing.
 - e) Aim. Combine a and b.
2. End: leg-swing right in front of left hand and leg-swing left forward over left bar to cross-support-lying right (on right thigh).
3. As 2, but to side-support-lying frontways; jump-off backward.
4. As 3, but continue leg-swing left between bars to riding-seat rear of right hand; front vault dismount left.

5. Aim. As 4, but to straddle-seat: leg-swing right in front of left hand, $\frac{1}{2}$ turn right with leg-swing left forward to straddle-seat in rear; front vault dismount.

Emphasize: high swing of free leg, straight leg, correct posture during hopping.

VI.

Topic: Hand-jumping in support; backward and forward turnovers to inverted hangs and to seats, respectively.

1. Support: two hand jumps in place and two forward.
2. Support: two hand jumps in place and two backward.
3. Support: four hand jumps forward and four backward. (Aim.)
4. Stand rearways: half turn-over backward to
 - a) inverted squat-hang;
 - b) inverted balance-hang;
 - c) inverted hang. Alternate any two.
5. Stand rearways: $\frac{3}{4}$ turn-over backward to double (single) hammock-hang.
6. Stand rearways: whole turn-over backward to stand (or hang) and return. (Aim.)
7. Stand frontways: *straddle-swingup* (whole turn-over forward) to
 - a) Straddle-seat front of hands;
 - b) Riding-seat front of hands;
 - c) Outer oblique seat front of hands.(Aim.) (Rear vault.)

Begin these exercises by bending trunk fore-downward and then grasping bars with outer grip.

VII.

Topic: Exercises in cross support-lying frontways and rearways; half turn with leg-swing backward from seats; scissors forward.

1. Swing to *support-lying frontways* and
 - a) Intermediate swing to rear vault with $\frac{1}{4}$ turn;
 - b) Hand-jumping in place and forward;
 - c) Aim. Arm-bending with leg-lowering; also lower to hammock hang;
 - d) Raising opposite arm and foot (balance.)
2. Swing to *support-lying rearways*, intermediate swing and front vault. (Also intermediate swing to seats or to support-lying frontways.) Arrange progressively.
3. Riding-seat front of left hand, $\frac{1}{4}$ turn with leg-swing right backward to side support-lying.
4. As 3, from straddle-seat.
5. As 3, but *with half-turn* to
 - a) Cross-seat, rear vault;
 - b) Cross support-lying.
6. As 5, from straddle-seat. (Aim.)
7. Swinging, *scissors forward* to straddle-seat. (Aim.) Preparatory: on horse, also over the single bar first.

Emphasize: correct posture in support-lying.

VIII.

Topic: Hand-jumping from swinging; hip- and scissor-swingup.

1. Swinging with hand-jumping forward;
 - a) with the forward swing;

- b) with the backward swing;
 - c) with the *backward and forward swing*.
(Aim.)
- 2. As 1, but handjumping backward. (Aim.)
- 3. *Hip-swingup* from outer side-stand, upper grip on far bar, arms under near bar, to side support-lying. (Aim.)
- 4. *Scissor-swingup*. Cross-stand under left bar with outer grip, scissor-swingup to straddle-seat (support-lying). Preparatory: to oblique cross-lying position sideways left on right bar, then turn to straddle-seat; then in one swing. (Aim.)
- 5. Review scissors forward and backward from swing.

IX.

Topic: Development of forearm swing-stem (rise); preparatory exercises for vaults from support on end, facing outward, over one and both bars.

- 1. Forearm support (alternate and) simultaneous arm stem (rise) to support. Rear and front vault.
- 2. Swing in forearm support and swing-stem (rise) to straddle seat (and other seats) in in rear (front) of hands. Front and rear vault.
- 3. From forearm support, *swing-stem (swing rise)* backward to support; intermediate swing and front vault. (Care.)
- 4. As 3, but *swing-stem (rise)* forward and rear vault. (Care.)

5. Cross support lying, end of bar, facing outward:
 - a) leg-swing forward under left hand with $\frac{1}{4}$ turn right to a stand;
 - b) straddle vault forward (lean well forward). (Assistance, grasp upper arm.)
 - c) flank vault forward left.

X.

Topic: Vaults forward from support-swinging on end of bar; bent support exercises.

1. Support-swing on end of bar facing outward and
 - a) *leg-swing left forward* under left hand with $\frac{1}{4}$ turn right;
 - b) *straddle-vault*;
 - c) flank vault.

(Assistance by grasping upper arm; also with placing hand on chest; insist on leaning well forward and on vigorous thrust from hands. Repeat frequently, 1) to acquire confidence, i. e., courage; b) for form. Preparatory: straddle vault over buck from run and support, over long horse from support-lying.)
2. Support, sink to bent support; jump off backward.
3. As 2, with knee raising, leg straddling sideward.
4. As 2, then $\frac{1}{4}$ turn to single forearm support.
5. Support, *hand jump forward to bent support*, straighten to support and repeat.
6. Dipping, unlimited.

XI. (SIDE PARELLEL BARS.)

Topic: Leg-swing from side support-lying.

1. Jump to side support-lying. Double take-off with hands moving from near to far bar during the jump.
2. As 1, with grip on far bar.
3. As 2, then single and alternate leg-swing outward forward and return over far bar.
4. As 2, then single and alternate leg-swing outward forward and return between bars.
5. As 4, with $\frac{1}{4}$ turn to outer cross (oblique) seat in front and rear of hands and rear and front vault dismount.
6. As 5, but *return to support-lying* (leg-circle) instead of cross-seat.
7. As 3, but to a straddle-seat in rear of hands, front vault.

XII.

Topics: Preparatory exercises for the dip-swing; flank and front vault forward from support-swinging on end, facing outward.

1. Support-swing, end of bar, facing outward and
 - a) *flank vault forward*;
 - b) *front vault forward* ($\frac{1}{4}$ turn). Assistance by grasping the supporting arm. Emphasize hip straightening.
2. Swinging (moderate) in bent support (four times), end, facing inward.
3. As 2, jump off backward, straightening arms.
4. Support-lying frontways, bent arms and then swing forward and backward to support-lying frontways; straighten arms; repeat.

5. As 4, from straddle seat rear of hands; begin by bending arms and pushing body backward. *Also straddle seat and changing forward through bent support.*

XIII.

Topic: Straighten arms from bent support with flexed and extended leg elevations.

1. Review: swing-stem forward and backward from forearm-support to
 - a) various seats and then dismounts:
 - b) support and various dismounts.
 Various terminating exercises are added to the initial exercise. Practice for form.
2. Jump to bent support; straighten to support with
 - a) single and double knee-raising forward;
 - b) leg-straddling sideward;
 - c) single and *double leg-raising forward.*

XIV. (SIDE PARALLEL BARS.)

Topic: Flank and front vault to inner stand (preparatory to vaulting over bar).

1. Review: Side support-lying, leg-swing outward and forward between bars with $\frac{1}{4}$ turn to outer cross (oblique) seat and various dismounts. Also return to support-lying. Review them by adding to 3 and 5 as suggested under 3.
2. *Flank vault* to inner side stand. Preparatory: flank vault over side horse and horizontal bar.

3. As 2, then jump to support with leg-swing left, then right, back-outward to side support-lying and add exercises under 1.
4. Oblique run and *front vault left*, divided grip, left hand on far, right on near bar, to inner cross (a) stand; (b) support.
5. As 4, from perpendicular run; add exercises. Progression in combinations (sequences) by adding exercises to the starting exercise.

XV.

Topic: Developing leg-swing forward under hand to support on end of bar facing inward; the dip-swing forward.

1. End, support, facing outward: leg-swing under hand and straddle vault to stand. (Review.)
2. End, facing inward: jump to support with leg-swing sideward; single, alternate and double (straddle).
3. As 2, single (alternate) to riding seat rear of hand (the hand hops forward); grasp backward and leg-swing inward to stand.
4. As 3, but *leg-swing under hand* to riding seat in front of hand.
5. As 4, with simultaneous swing of other leg to straddle seat in front of hands; grasp forward and front vault.
6. As 5, but to outer oblique seat on same bar; same dismount.
7. *Leg-swing under the hand* (same) to support (four times).

Emphasize the swing of free leg as the active leg swings under the hand (5, 6, 7); both must swing up together.

8. Bent support swinging, straighten arms with forward swing, back-swing and front vault.
9. As 8, but intermediate instead of back-swing, and rear vault.
10. *Dip-swing forward* (four times). Emphasize arm-bending at proper moment.

XVI.

Topic: End, facing inward; development of rear vault from leg-swing under hand opposite to side of vault.

1. Review: Flank and front vault forward from support rearways swinging (end of bar).
2. Review: Leg-swing forward under hand to support (frontways at end).
3. As 2, to riding seat in front of other hand; front vault dismount.
4. As 2, to outer cross (oblique) seat in front of other hand; front vault dismount.
5. *Leg-swing under hand to rear vault* over other bar. (Regrasp.)
Both legs must swing up together in 2, 3, 4 and 5.
6. Dip-swing forward (four times). Review.
7. Dip-swing forward, back-swing and front vault.
8. Dip-swing forward, intermediate swing and rear vault.

XVII. (SIDE PARALLEL BARS.)

Topic: Development of rear vault over both bars; flank vault and front vault.

1. Review: (a) Flank vault to inner side stand; quarter turn and rear vault.
b) Front vault to cross stand and support from oblique and perpendicular run; rear vault.
2. *Front vault over both bars* (grip divided).
3. Grip right on far and left on near bar, rear vault mount right (i. e., toward the left) to
 - a) oblique seat on near bar; rear vault dismount;
 - b) straddle seat; rear vault dismount.
4. *Rear vault over both bars.*
5. *Flank vault left over both bars* with same grip. Preparatory exercises on horizontal bar and side horses: flank, front and rear vault. Progression by raising bar.

XVIII.

Topic: Single leg-swing sideward under same hand to a stand from support on end facing inward and preceded by seats.

1. Review: Scissors backward and forward to straddle seats and front and rear vault dismounts.
2. Review: End, facing inward; leg-swing under one hand to rear vault over other bar.
3. End, facing inward; jump to momentary balance support and *single leg-swing sideward under hand to stand* (slow at first).

Emphasize: straight leg, thrust from bar, move trunk backward, leg-swing sideward, not backward, timely lifting and regrasping.

Preparatory: leg-swing on side horse.

4. As 3, from following seats in front of hand opposite to leg-swing:
 - a) inner cross seat;
 - b) riding seat;
 - c) *outer cross and oblique seat.*

A fundamental exercise is preceded by simple introductory exercises.

XIX.

1. End: (a) Leg-swing inward to support and to rear vault. (b) Leg-swing outward and backward to stand from seats. (Review.)
2. End, rearways: Flank, front and straddle vaults to stand. (Review.)
3. Swing-stem (rise) forward and backward from forearm support and front and rear vault. (Review.)
4. Dip-swing forward six times. (Review.)
5. Scissor-swingup to a straddle seat and supporting. (Review.)

Emphasize form in all reviews.

XX. (SIDE PARALLEL BARS.)

1. Review: Flank, front and rear vaults over both bars from run and stand for strength and form. Progression by raising bars.
2. Hip-swingup from side stand frontways. (Review.)
3. Straddle-swingup from cross stand rearways. (Review.)

4. As 2, then single and alternate leg-swing
 - a) to straddle seat;
 - b) between bars with turns to outer cross or oblique seat.Emphasize form.

Buck and Long Horse.

I. (BUCK, SIDE.)

Topic: Various mounts; straddle vault.

1. Front vault mount to riding-seat and dismount.
 2. As 1, but $\frac{1}{2}$ turn (in all) to side stride-seat. Repeat frequently for strength and form.
 3. Flank vault mount—jump off forward.
 4. Rear vault mount and dismount. Preceded by leg-swing under opposite hand to seat.
 5. Free support with side straddling.
 6. *Straddle vault.* Repeat in rapid succession for strength, slower for form. Emphasize: straight legs, thrust from hands, and straightening of hips (not too forcibly).
 7. Straddle vault from support.
 8. Repeat 1-4 preceded by single and double knee-mount and intermediate jump.
- Note: Difficult exercises not mastered in a lesson should be reviewed at a future time.

II. (LONG HORSE.)

Topic: Seats and supports on long horse.

1. *Free support.* Repeat in rapid succession again and again for strength and form.
2. Jump to *cross-seat left* (right) on right side of horse.

3. Jump to *cross-support* sideways left (right).
4. Jump to *side-support frontways, rearways*.
5. Straddle vault mount and front and rear vault dismount.
6. Straddle vault mount; $\frac{1}{4}$ turn; leg-swing forward to support rearways; jump-off forward. Emphasis to be placed on correct seats.
7. Jump to squat-stand left, right, both; jump off backward.

III. (BUCK, LONG.)

Topic: Development of straddle vault over long buck; straddle vault with $\frac{1}{4}$ and $\frac{1}{2}$ turns before alighting.

1. Jump to riding-seat, swing to support-lying, straddle vault.
2. Jump to riding-seat, straddle vault.
Preparatory: raise to balance-support several times from riding seat.
Emphasize: grip on far end, vigorous thrust against buck, leg-swing forward.
3. Jump to support-lying, straddle vault.
4. *Straddle vault over long buck.* Repeat frequently in rapid succession for strength; later for form.
Preparatory exercise (1-3) for the straddle vault over long buck.
Emphasize: correct grips; i. e., on far end of buck; assistance by standing close to buck with one (right) leg forward.
5. Straddle vault with $\frac{1}{4}$ and $\frac{1}{2}$ turns before alighting.

IV. (LONG HORSE.)

Topic: Development of front vault from oblique run over long horse with support on neck; from straight run with support on croup. (Preparatory exercises.)

1. Oblique run, grip on neck and front vault mount to
 - a) riding-seat;
 - b) support-lying; front vault dismount.
2. As 1, but *front vault*.
Emphasize: straight arms, straight hips, body arched.
Repeat frequently in rapid succession for strength and later for form.
3. As 2, with $\frac{1}{4}$ turn toward apparatus.
Preparatory exercises (1 a and b) for front vault from oblique run, long horse.
4. Straight run and jump to side-support frontways on left side.
5. As 4, with:
 - a) leg-swing left sideward on horse;
 - b) leg-swing left sideward over horse to stride-seat;
 - c) leg-swing left *sideward over horse with* $\frac{1}{4}$ *turn right* to riding-seat, front vault dismount.
6. As 5c, but both legs to *support-lying frontways*.
These latter exercises (5 a-3 and 6) are to be repeated at a future time in preparation for the front vault.

V. (LONG BUCK.)

Topic: Straddle vault for height and distance.

1. *Straddle vault for distance.* (Move take-off backward.)
2. *Straddle vault for height.* (Raise the buck after each vault.)
3. Review (from long horse): Jump to side-support frontways and immediately swing both legs sideward with $\frac{1}{4}$ turn to
 - a) cross support-lying frontways;
 - b) front vault. (Aim.)

Prepared on long horse by first swinging single leg (a) on horse; (b) over horse; (c) over horse with $\frac{1}{4}$ turn.

Repeat No. 3 frequently for form; emphasize form in straddle vault for distance and height.

VI. (LONG HORSE.)

Topic: Development of scissors.

1. Riding-seat, support-lying, scissors backward; front vault dismount.
2. Riding-seat, scissors backward, front vault dismount. (Aim.)
3. Riding-seat, scissors forward, rear vault dismount. (Aim.)

If necessary, scissors may be prepared by $\frac{1}{4}$ and then $\frac{1}{2}$ turn, first from support-lying, then riding-seat; leg-swing backward with closing to free support should be demanded.

4. Riding seat:
 - a) in saddle (middle);
 - b) on neck (far end);
 - c) on neck with moving take-off backward and add scissors forward and backward.
5. Review front vault from oblique run.
6. Review leg-swing with $\frac{1}{2}$ turn to riding-seat from jump.

VII. (LONG HORSE.)

Topic: Development of fencers' rear vault.

1. With oblique run from left side and take-off left, jump to oblique seat on left side.
2. As 1, to closed cross-seat.
3. As 2, to riding-seat.
4. As 2, to oblique seat on right side.
5. *Fencers' rear vault right.* (Aim.)

Exercises 1 to 4 are preparatory.

Emphasize straight and closed legs.

Repeat frequently in rapid succession for strength and skill and later for form.

6. Front vault from oblique run, grip on neck; add $\frac{1}{4}$ and $\frac{1}{2}$ turns outward; i. e., away from the apparatus.

VIII. (SIDE BUCK.)

1. Knee-mount single and double jointed by intermediate jump.
2. Knee-mount left; linked changing.
3. Knee-jump forward (care), knees well forward.
4. Knee-jump forward with $\frac{1}{4}$ and $\frac{1}{2}$ turns. (Aim.)

5. Sheep-vault. (Aim.)

Exercises 1 to 5 are prepared on side horse.
(See lesson V, side horse.)

Long.

6. Jump with $\frac{1}{4}$ turn and repeat 3 and 4.7. Knee-stand, *knee-jump to stand on buck.*

8. Review straddle vault for distance.

IX. (LONG HORSE.)

Topic: Long vault to support-lying; fencer's flank and front vault.

1. *Long vault with hand-jump* from croup to neck, to support-lying frontways; straddle vault.2. As 1, *with grip on neck* immediately.

Repeat 1 and 2 frequently to acquire strength and good form. Emphasize the high vault, similar to a dive.

3. Fencer's rear vault (review).

4. Fencer's flank vault left and $\frac{1}{4}$ turn right.5. Fencer's front vault left and $\frac{1}{2}$ turn right.

The foot opposite to the one used in the rear vault takes off.

Emphasize vigorous swing of the free leg and arm.

Exercises 4 and 5 may first be executed to side support-lying sideways and cross support-lying frontways respectively as preparatory.

X. (BUCK.)

Topic: Straddle vault for distance over a constantly moved rope on floor; straddle, to squat vault on long buck.

Long buck, shoulder high.

1. Straddle vault *over low rope for distance*. The rope should be moved after each vault.
2. Straddle vault *to stand on buck*. Repeat frequently in rapid succession.
3. Straddle-squat vault (cat-jump) over buck. Repeat frequently.
4. Review straddle vaults with $\frac{1}{4}$ and $\frac{1}{2}$ turns before alighting.
5. Review the knee-jump (single and double) forward.
6. Review front vault by swing along side of buck with $\frac{1}{4}$ turn to the vault.

XI. (LONG HORSE.)

Topic: Development of rear vault from cross-stand.

1. Double take-off and jump to oblique seat on left side; jump off left sideward (right hand grasps forward). In coming to the seat the the left hand is lifted and replaced behind the body.
2. As 1, to closed cross-seat.
3. As 1, over horse (rear vault mount right) to oblique seat on right side.
4. *Rear vault right from cross-stand over long horse*. The left hand is lifted and replaced, as begun in exercise 1, and the weight is on both, on right, on left hand as the vault is completed.
Emphasize vigorous swing of straight legs.
5. Review front vault from oblique run with $\frac{1}{2}$ turn outward, grip on neck.
6. Review fencer's rear, flank and front vault.

XII. (BUCK.)

Topic: Play forms of the straddle vault.

Side buck: Raise the buck gradually to suit exercises (progression).

1. *Straddle vault to support rearways.* Repeat frequently.
2. Straddle vault, clapping hands,
 - a) after supporting;
 - b) before supporting;
 - c) both before and after supporting.
3. Straddle vault, *support of one hand.*
4. Straddle vault over oblique buck.
5. Straddle vault over side buck, but support on shoulder of gymnast standing in rear of buck.

XIII. (LONG HORSE.)

Topic: Rear vault over long horse with $\frac{1}{4}$ and $\frac{1}{2}$ turns inward; rear vault over long horse with $\frac{1}{4}$ turn and add other exercises.

1. Rear vault. (Review.)
2. Rear vault *with* $\frac{1}{4}$ *turn* toward apparatus.
3. Rear vault *with* $\frac{1}{2}$ *turn* toward apparatus. (Turn-rear vault.)
4. As 2, then knee-mount and knee-jump.
5. As 2, then leg-swing mount, scissors, front vault dismount.
6. As 2, then front vault mount, scissors, front vault dismount.
7. As 2, then rear vault mount, scissors, front vault dismount.
8. Review long vault, support on neck, to supporting.

9. As 2, then flank, front and rear vault (if time permits).
Emphasize high swinging of extended legs in the rear vault.

XIV. (SIDE BUCK.)

Topic: Development of squat vault over side buck.

1. Double squat stand, jump off backward.
2. Single squat stand, jump off backward.
3. Single squat stand, simultaneous changing three times.
4. Squat mount to straight stand; jump off forward.
5. As 4, without perceptible pause and jump off forward (with $\frac{1}{4}$ and $\frac{1}{2}$ turns).
6. Squat vault.
Emphasize forceful thrust from hands against the buck.
Repeat frequently in rapid succession for strength, and later for form.
7. Review, flank, front, rear vault.

XV. (LONG HORSE.)

Topic: Preparatory exercises for straddle vault from stand on croup.

1. Double squat-stand; jump off backward.
2. Double squat-mount to straight stand; sink to riding seat, front vault dismount.
3. As 2, but fall to support-lying, straddle vault.
4. As 1, then straighten to support-lying and immediately straddle vault. Repeat frequently. Emphasize form.

5. Squat mount to straight stand; straddle vault, support on neck.
6. As 5, but straddle vault with support on shoulders of pupil sitting on neck. Repeat frequently. Emphasize form.

XVI. (BUCK, SIDE.)

Topic: Progression of the squat vault.

1. Double squat stand; jump off forward.
2. Single squat mount to straight stand with free leg raised backward and leg-swing jump forward.
3. Double squat mount with quarter-turn to straight stand and jump off sideward.
4. Squat vault.
5. Squat vault, *moving take-off backward*, moderate distance. Assistance for each new distance.
6. Squat vault *for height*. (Progression.)
Raise the buck after each jump. The straddle, flank, front and rear vault may also be taken over each height.

XVII. (LONG HORSE.)

1. Review long vault to support lying; straddle vault.
2. As 1, add quarter and half turns to straddle vault.
3. Review rear vault with quarter turn and add
 - a) Single squat stand } jump-off
 - b) Double squat stand } forward;
 - c) Leg-swing from under left and right hand to support rearways.

4. Stand on croup, straddle vault over pupil sitting on neck. (Review.)

XVIII. (BUCK, LONG.)

1. Jump with quarter turn and front vault.
2. Straddle vault, support one hand (left, right).
3. Straddle vault with half turns before alighting.
4. Straddle vault, support on shoulders of pupil standing in rear of buck.

Side.

5. Knee-jump with half turn.
6. Sheep vault.
7. Squat vault.

XIX. (LONG HORSE.)

1. Fencer's rear, flank and front vault.
2. Front vault from oblique run, support on neck.
3. Rear vault with half turn.
4. Long vault to support-lying; straddle vault.
5. Stand on croup, straddle vault over neck.

XX.

Review, with buck and horse raised.

Rings.

Exercises for some of the following abbreviated topics may be found under similar topics of the horizontal bar.

I. Exercises in the bent and straight hang.

1. Straight hang: arm bending; with leg exercises.
2. Bent hang, followed by a) single arm straightening forward, sideward upward; b) leg exercises.

3. The short swing fore-backward and sideward and the circle-swing of the legs in the straight and bent hang.

II. Turnover backward to various nest-hangs, knee-hangs and inverted hangs. Leg-swing over same hand with releasing and regrasping.

1. Single and double nest-hang on strap and later on rings.
2. Inner single and double knee-hang over same and opposite hand.
3. Turnover backward to inverted squat-, inverted balance-, inverted hang and hang rearways, and return.
4. Single leg-swing over same hand and release and regrasp.

III. Turnover forward to various positions and to leg-swing over hand with releasing and regrasping.

Whole turnover forward, from stand to stand, to hang, to hand-knee-hang, to leg-swing over hand (regrasp).

IV. Arm and leg exercises in support.

1. Jump to straight and bent support.
2. Leg exercises in and with assuming support.
3. Arm bending and straightening in support.

V. Knee- and hip swingup.

1. Knee-swingup forward on one ring.
2. Hip-swingup by placing hands under hips. The rings are grasped above, close to the ropes.

VI. Repeat II from the short swing in the bent hang.

VII. The pendulum swing. Arm and leg exercises and positions in it.

1. Straight hang pendulum swing. Jump off at either end.
2. Pendulum swing: Bent arms at end and during (a) the forward, (b) the backward swing.
3. As 2 with leg exercises and positions.
4. With straightening one arm.

VIII. Turns in the pendulum swing.

1. Half turns at either end of every second swing.
2. As 1, but at end of every swing.
3. As 1 and 2, but whole turns.

IX. Turnover backward in pendulum swing to the various nest- and knee-hangs given under II. Lower to stand after several swings.

X. The pendulum swing and turnover backward.

Pendulum swing: Turnover backward to inverted squat-, inverted balance-, inverted hang, nest-hang and hang rearways.

XI. Leg-swing over hand and inverted balance-hang in pendulum swing.

1. Pendulum swing: Leg-swing over same hand at end of either swing. (Release and regrasp.)

2. Pendulum swing: Turnover backward to inverted balance-hang with forward, and return with backward swing.
3. The same vice versa.

XII. Support in the pendulum swing. Pendulum vault.

1. Jump to straight and bent support with the pendulum swing. (Rings shoulder high.)
2. Arm straightening from the bent support.
3. Pendulum vault for height.





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